

REMARKS

Claims 1-14, 17, 18, and 21-26 are pending. The claims have been amended according to the Examiner's suggestions to address rejections under §112, first paragraph.

The claims were also rejected for lack of enablement. On page 5 of the Office Action, the Examiner states:

In view of the immature state of the art as discussed above, the high level of unpredictability, and absence of working examples in the specification, and the lack of adequate guidance, one of skill in the art could not practice the invention as intended (i.e., for the production of transgenic chickens) without undue experimentation.

Applicants submit that the specification provides adequate guidance for each step of carrying out the claimed method. The working example provided in the specification describes a method of delivering DNA to spermatogonia an animal of a different species, i.e., a boar; however, the steps of the procedure are not different for the presently claimed species - chickens.

The method has been carried out as described in the specification, and semen from treated animals was analyzed for presence of the transferred nucleic acid in sperm cells by polymerase chain reaction (PCR) as well as Fluorescent in situ hybridization (FISH) for several months following the procedure. Unlike the numerous references cited in the rejection, the data from the analysis (see Declaration of Paul A. DiTullio) indicate that the claimed methods were successfully employed to incorporate a transgene into the spermatogonia of a rooster and the treated spermatogonia produced transgenic sperm. Following the procedure of the claimed methods, sperm were found to contain copies of the transferred DNA indicating that the spermatogonia has incorporated the nucleic acid and was producing recombinant sperm cells.

To address the rejection for obviousness-type double patenting, Applicants hereby submit a terminal disclaimer.

CONCLUSION

On the basis of the foregoing amendments and the enclosed Declaration of Paul A. DiTullio, Applicants respectfully submit that the pending claims are in condition for allowance. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,



Ingrid A. Beattie, Reg. No. 42,306
Attorney for Applicants
c/o MINTZ, LEVIN, COHN, FERRIS,
GLOVSKY & POPEO, P.C.
Tel.: (617) 542 6000
Fax: (617) 542-2241
Customer No. 30623